

What is claimed is:

1. A method of communicating a message between an automotive device of an automotive control area network and a non-automotive, industrial device of a non-automotive, fieldbus network, the method comprising:

5 receiving a message of a source format from one of the automotive device of the automotive control area network and the non-automotive, industrial device of the non-automotive, fieldbus network;

translating the message of the source format to a common language format;

10 processing the message of a common language format via a set of stored, configurable rules;

translating the processed message of a common language format to a destination message format;

15 delivering the message in the appropriate destination format to one of the automotive device of the automotive control area network and the non-automotive, industrial device of the non-automotive, fieldbus network.

2. The method of claim 1, wherein the message includes more than one message.

3. The method of claim 1, wherein the automotive device of the automotive control area network includes multiple automotive devices of the automotive control area network.

4. The method of claim 1, wherein the non-automotive, industrial device of the non-automotive, fieldbus network includes multiple non-automotive, industrial devices of the non-automotive, fieldbus network.

5. The method of claim 1, wherein receiving a message of a source format is performed using an electronic transceiver, the electronic transceiver transmits the message to a microprocessor, and the microprocessor performs the translating and processing steps.

6. The method of claim 1, wherein the set of stored, configurable rules include instructions to at least one of send, discard, and modify the message.

10 7. The method of claim 1, further including a CAN-to-fieldbus converter and a protocol handler unique to a specific fieldbus protocol of the non-automotive, fieldbus network integrated into the CAN-to-fieldbus converter.

8. The method of claim 7, wherein the CAN-to-fieldbus converter includes a transceiver as a permanent component of the converter, and the
15 transceiver performs as an electronic voltage and impedance interface.

9. The method of claim 8, wherein the transceiver is a modular component incorporated into the converter during manufacture of the converter.

10. The method of claim 8, further including a microprocessor, and power to the transceiver is turned on and off via a signal from the
20 microprocessor.

11. The method of claim 1, wherein a microprocessor performs the translating steps using one or more tables.

12. The method of claim 11, further including the step of supplying the one or more tables with the automotive control area network.

13. The method of claim 11, further including the step of supplying the one or more tables with the non-automotive, fieldbus network.

5 14. The method of claim 1, further including the step of supplying the set of stored, configurable rules with the automotive control area network.

15. The method of claim 1, further including the step of supplying the set of stored, configurable rules with the non-automotive, fieldbus network.

16. The method of claim 1, wherein the receiving, translating,
10 processing, and delivering steps are performed using a self-contained, on-board, CAN-to-fieldbus converter.

17. The method of claim 16, further including a waterproof enclosure containing the self-contained, on-board, CAN-to-fieldbus converter, and the enclosure is impervious to heat and vibration from an automotive environment.

15 18. The method of claim 16, wherein the self-contained, on-board, CAN-to-fieldbus converter includes a separate protocol handler and microprocessor, and the protocol handler is specific to the non-automotive, fieldbus network.

19. The method of claim 18, wherein the protocol handler is removable
20 from the self-contained, on-board, CAN-to-fieldbus converter and is replaceable with another protocol handler specific to a different non-automotive, fieldbus network, and the method further includes removing the protocol handler from the self-contained, on-board, CAN-to-fieldbus converter, and replacing the protocol

handler with another protocol handler specific to a different non-automotive, fieldbus network.